Arthritis

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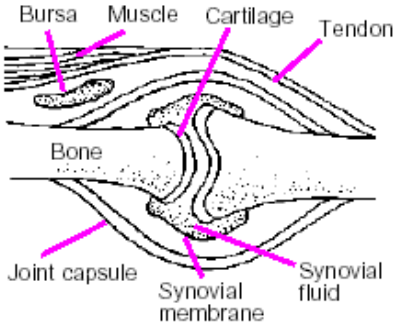
Introduction

Forty-three million Americans report that a doctor told them they have arthritis or other rheumatic conditions. Arthritis is the leading cause of disability in the United States, limiting the activities of more than 16 million adults.

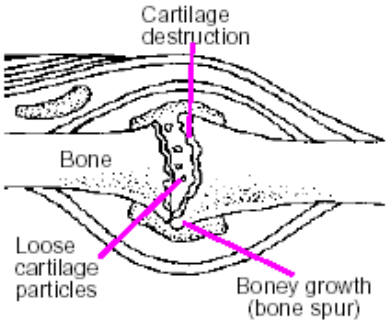
What is Arthritis?

The word *arthritis* actually means joint inflammation. The term *arthritis* is used to describe more than 100 rheumatic diseases and conditions that affect joints, the tissues which surround the joint and other connective tissue. The pattern, severity and location of symptoms can vary depending on the specific form of the disease. Typically, rheumatic conditions are characterized by pain and stiffness in and around one or more joints. The symptoms can develop gradually or suddenly. Certain rheumatic conditions can also involve the immune system and various internal organs of the body.

How Joints Work



A healthy joint



A joint with osteoarthritis

In simple terms, a joint is an area of the body where two or more bones are joined together using a network of muscles**,** tendons, ligaments, and cartilage**.** Muscles are attached to bones with tendons (flexible, fibrous cords of tissue). Muscles create movement in the joint, and they also help stabilize the joint. Smooth articular cartilage encases the bones in the joint and helps promote friction-free movement, while pads of cartilage help absorb shock. Ligaments—tough bands of fibrous tissue—bind the joint together. The entire joint is surrounded by a sheath or "glove" of strong fibrous material called the joint capsule. The synovial lining of the joint capsule secretes tiny amounts of fluid that lubricate the joint. In addition, some joints (such as in the shoulder and the knee) are supplemented by bursa sacs (bursae), little fluid-filled sacs that help cushion the joint and reduce friction.

The human body has many different kinds of joints—from simple "hinge" joints such as the elbow to very complex joints such as the hip and shoulder—which can move in many different directions. In addition, some joints must be

able to withstand tremendous weights and forces; the knee, for example, must support the weight of the entire body as it moves through space. Furthermore, pressure on the knee is magnified when you run, climb stairs, or walk on an uneven surface.

The Most Common Types of Arthritis

Osteoarthritis (OA)

Osteoarthritis is a disease characterized by degeneration of cartilage and its underlying bone within a joint as well as bony overgrowth. The breakdown of these tissues eventually leads to pain and joint stiffness. The joints most commonly affected are the knees, hips, and those in the hands and spine. The specific causes of osteoarthritis are unknown, but are believed to be a result of both mechanical and molecular events in the affected joint. Disease onset is gradual and usually begins after the age of 40. There is currently no cure for OA. Treatment for OA focuses on relieving symptoms and improving function, and can include a combination of patient education, physical therapy, weight control, and use of medications.

Rheumatoid Arthritis (RA)

Rheumatoid arthritis is a systemic inflammatory disease which manifests itself in multiple joints of the body. The inflammatory process primarily affects the lining of the joints (synovial membrane), but can also affect other organs. The inflamed synovium leads to erosions of the cartilage and bone and possibly joint deformity. Pain, swelling, and redness are common joint manifestations. Although the definitive causes are unknown, RA is believed to be the result of a faulty immune response. RA can begin at any age and is associated with fatigue and prolonged stiffness after rest. There is no cure for RA, but new drugs are increasingly available to treat the disease. In addition to medications and surgery, good self-management, including exercise, are known to reduce pain and disability.

Gout

Gout is a rheumatic disease resulting from deposition of uric acid crystals (monosodium urate) in tissues and fluids within the body. This process is caused by an overproduction or under excretion of uric acid. Certain common medications and dietary foods are known to be contributory factors. Acute gout will typically manifest itself as an acutely red, hot, and swollen joint with excruciating pain. These acute gouty flare-ups respond well to treatment with oral anti-inflammatory medicines and may be prevented with medication and diet changes. Recurrent bouts of acute gout can lead to a degenerative form of arthritis called gouty arthritis.

Systemic Lupus Erythematosus (SLE)

Systemic Lupus Erythematosus is an autoimmune disease in which the immune system produces antibodies to cells within the body leading to widespread inflammation and tissue damage. The causes of SLE are unknown but are believed to be linked to genetic, environmental, and hormonal factors. SLE may be characterized by periods of illness and remissions. SLE has a variety of clinical manifestations and can affect joints, skin, brain, lungs, kidneys, and blood vessels. People with SLE may experience fatigue, pain or swelling in joints, skin rashes, and fevers. SLE predominately affects women between the ages of 15 and 40 and blacks more than whites. A team approach in treating lupus is often warranted due to the number of organ systems involved.

Fibromyalgia

Fibromyalgia is a syndrome predominately characterized by muscular pains and fatigue. The causes of fibromyalgia are unknown; however researchers hypothesize that genetics and, physical and emotional stressors are possible contributory factors to the development of the illness. Latest research suggests that fibromyalgia is a neurological disease that manifests because of faulty pain perception. There are difficulties in diagnosing fibromyalgia, since its clinical picture can overlap other illnesses and there are no definitive diagnostic tests. Patient education, pharmacologic agents, and other nonpharmacologic therapies are used to treat fibromyalgia. Exercise has been found to improve outcomes for people with fibromyalgia.

10 Ways to Prevent Arthritis

1. **Don't ignore joint pain.** Studies show joint damage occurs early in some forms of arthritis, often within the first two years.
   Health Tip: If you have joint pain that lasts for more than two weeks, see your doctor.

2. **Get a specific diagnosis.** With more than 100 forms of arthritis, each requiring a different treatment, getting a specific diagnosis from your doctor is important.
   Health Tip: Work with your doctor on a comprehensive treatment plan.

3. **Get active.** Regular exercise protects joints by strengthening the muscles around them, lessens pain, increases range of movement and reduces fatigue.
   Health Tip: Spend 30 minutes per day on most days of the week doing a physical activity you enjoy.

4. **Shed excess weight.** The more you weigh the more stress you put on your joints, especially your knees, hips, back and feet.
   Health Tip: If overweight, lose as little as 11 pounds to reduce joint pain and help prevent some forms of arthritis by 50 percent.

5. **Maintain a healthy diet.** For optimal health, it's important to eat a balanced, healthy diet. Recent research points to the importance of vitamin C and other antioxidants in reducing the risk of osteoarthritis.
   Health Tip: If you are looking for a snack, reach for an orange or a tall glass of orange juice for disease fighting antioxidants.

6. **Think big.** To protect your joints, always use the largest and strongest joint possible to complete the task. The larger the surface you have to spread the weight over, the better.
   Health Tip: Carry large items close to your body, using your arms instead of your hands to reduce the risk of injuries.

7. **Play smart.** Protect yourself from joint injury during physical activities by warming up properly and varying use of muscle groups.
   Health Tip: Wear joint braces or guards to alleviate joint stress and reduce the risk of injury. Consider low-impact activities like biking or swimming that offer calorie-burning benefits without adding stress to the joints.

8. **Modify job tasks.** Repetitive motion has been shown to increase the risk of developing arthritis.
   Health Tip: Schedule your day so that you can alternate job tasks and avoid using the same joints repeatedly. Take frequent breaks to stand and stretch stiff joints and sore muscles.

9. **Relax.** Be good to yourself. Stress is a common trigger of joint pain and fatigue.
   Health Tip: Treat yourself to a massage or a warm bath. Both have been proven to relieve muscle tension and ease joint pain. Remember that better emotional health often equals better physical health.

10. **Quit smoking.** Smoking can reduce bone mass, leading to osteoporosis and a greater risk of fractures. It can also increase your risk of complications from several forms of arthritis and prolong recovery from surgeries.
    Health Tip: Get the help you need to kick the habit.

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Resources

Arthritis Foundation
www.arthritis.org

Centers for Disease Control and Prevention
www.cdc.gov
www.cdc.gov/arthritis

American Physical Therapy Association
www.apta.org